

REMARKS

Claims 1, 4-10 and 14-21 are pending in the application. Claims 2-3, and 11-13 have been canceled. Claims 1, 7, 8, 17, 18 and 21 have been amended. Claims 22 and 23 are new. The amendments to the claims are supported by at least Figs 4 and 5 and pages 11-15 of the application. Applicant submits that no new matter has been added to the application by the Amendment.

Claim Rejections 35 U.S.C. § 103

The Examiner rejected claims 1, 5 and 15 and 21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,180,616 to Gassho et al. ("Gassho") in combination with U.S. Patent Application Publication No. 2003/0133152 to Matsueda ("Matsueda '152").

Gassho et al. is directed to a printing system arranged on a network including: (1) a plurality of client computers 20, 30, 40; (2) a plurality of printers 51, each of which has a job status monitor unit 104 which monitors congestion status of the print jobs stored in the printer, and a printer status monitor unit 105 which monitors the working status of the printing mechanism, i.e. failure, paper jam or out of paper (col. 10, lines 50-53; col. 11, lines 33-35) and; (3) a print load distribution apparatus 80 which includes a job status monitor unit 111 which stores the status of print jobs transmitted from the job status monitoring units 104 of the respective printers, and a printer status monitor unit 112 which stores the monitoring results of the printer status transmitted from the printer status monitors 105 of the respective printers. When a print job is sent from a client computer to a printer selected by the client, the print job is temporarily stored in the selected printer. The print job status monitor 111 in the print load distribution apparatus 80 receives an indication of the printer congestion (queue size) from the selected printer and if the congestion is high, transfers the print job to an available printer having a shorter queue not in an error condition as determined by the printer status monitor unit 112.

Matsueda is directed to controlling the printing of a print job in accordance with a password. Matsueda comprises a printing system arranged on a network including: (1) a client apparatus 1-1, (2) a server 1-2 and (3) one or more printers 1-3. In reference to Fig. 6, in

response to a print request from a client apparatus, the server determines whether client information exists. If client information exists and if conditions are normal, the print job is transferred to the printer. If client information does not exist, the server instructs a printer to form a memory box for managing the job information in a memory apparatus of the printer. If the job information is successfully inputted and registered into the memory box of the printer, the client apparatus is notified of the inputted printer apparatus information and the memory box number (see Abstract and paragraph [0016]). If a printer can not be found to service the print request, the client is notified of an error paragraph [0083].

The present invention comprises system including a print server, a plurality of clients, at least one shared printer and a print server which uses a Windows™ operating system. One embodiment of the system is directed to notifying the plurality of clients that sharing of a network printer has been canceled or a printer which can be shared has been added to the network. The embodiment utilizes the hook function in the Windows™ operating system such that at the time a change occurs in a printer folder created in the server by the operating system, the change is collated with a database of shared printer information stored in the server. If the change indicates that a shared printer has been deleted from the network, an immediate notification is sent to the client computers along with the name of the printer that has been deleted.

The embodiment includes a program forming unit which forms an installing program which provides for installing a print driver in each client. If the change in the printer folder indicates that a new printer which can be shared has been added to the network, notification of the new printer is sent to each of the client computers including of the URL from which the installing program can be downloaded.

Amended claim 1 recites:

1. *A print system which processes print requests from a plurality of clients for printing on a printer comprising:
a storing unit which stores printer information about the printer, the printer information representing whether the printer can be shared by the plurality of clients;*

a printer monitoring unit which receives the printer information from the printer at times unrelated to processing of a print request from the plurality of clients, compares the received printer information with printer information corresponding to the printer previously stored in the storing unit, and if on the basis of the comparison, the monitoring unit determines that the received printer information is different from the stored printer information, the monitoring unit further determines that the stored printer information is invalid and cancels sharing of the printer;

a notifying unit which, in timely response to the monitoring unit canceling the shared printer, notifies said plurality of clients that the sharing of the printer has been canceled, the notice including a name of the canceled printer;

a program forming unit which forms an installing program for use by the client; and

if the printer monitoring unit detects an addition of a new printer which can be shared by the plurality of clients, the notifying unit sends information indicative of the position of the installing program to the plurality of clients.

In respect to claim 1, the Examiner first asserts that Gassho discloses a storing unit (spool buffer 55) that stores printer information about the printer, the printer indicating whether the printer can be shared by the plurality of clients.

The Examiner appears to be asserting that the spool buffer 55 corresponds to the claimed storing unit. Applicant respectfully submits that one skilled in the art would understand that the spool buffer 55 stores a print job, i.e. information to be printed (see for instance col. 10, lines 39-41) and does not store information indicating whether a printer can be shared.

The closest to the claimed storing unit that Gassho discloses is the printer status monitor unit 112 which stores the monitoring results of the printer status monitor units 105 transmitted from the respective printers 51. However, as described at col. 10, lines 50-53 and col. 11, lines 33-35, the print status monitoring unit 112 stores the working status of the printing mechanism 51, i.e. "failure, paper jam or out of paper" and does not store printer information representing whether the printer can be shared by the plurality of clients, as recited by amended claim 1.

Applicant submits that when viewed in the light of Applicant's specification, one skilled in the art would understand that information representing whether a printer can be shared by a plurality of clients is not the same as information which indicating the working status of a printer due to failure, paper jam or out of paper as taught by Gassho. Consequently, Gassho does not teach, suggest or disclose a storing unit which stores printer information representing whether a printer can be shared by a plurality of clients.

The Examiner admits that Gassho does not disclose a notifying unit but asserts that Matsueda discloses a notifying unit 226 that notifies the clients that the sharing of a printer has been canceled. However, as described at paragraph [0048] Applicant submits that the notifying unit 226 merely receives event information from a printer. The Examiner's reference to paragraph [0020] simply does not convey to one of ordinary skill in the art that Matsueda has a notifying unit that notifies clients that the sharing of a printer that was available for sharing can no longer be shared. Accordingly, Matsueda does not teach, suggest or disclose either a storing unit which stores printer information representing whether a printer can be shared by a plurality of clients or a notifying unit that notifies the plurality of printers that the sharing of a printer has been canceled.

Irrespective of the above differences, Applicant has amended claim 1 to recite "a program forming unit which forms an installing program for use by the client; and if the printer monitoring unit detects an addition of a new printer which can be shared by the plurality of clients, the notifying unit sends information indicative of the position of the installing program to the plurality of clients."

As recited in amended claim 1, when a new printer is added to the network as a shared printer, an installing program for the client is formed and a notification of the location of the installing program is sent to each of the plurality of clients. Thus, the driver for the new printer can be downloaded and installed by each client by virtue of the notification providing the position of the installing program to each of the clients.

Applicant submits that the combination of Gassho and Matsueda does not teach, suggest or disclose either a storing unit which stores printer information representing whether a printer can be shared, or a notifying unit that . Further, the combination of Gassho and Matsueda does not teach, suggest or disclose the claimed program forming unit which forms an installing

program or a notifying unit that sends information indicative of the position of the installing program to the plurality of clients.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claim 1.

Claim 21, is allowable for the same reasons that claim 1 is allowable.

Claims 5 and 15 are allowable based at least on their dependency from allowable claims 1 and 21 respectively.

Rejection - 35 U.S.C. § 103

The Examiner rejected claims 4, 6, 14 and 16 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gassho and Matsueda '152, and further in view of U.S. Patent No. 7,162,449 to Drummond et al. ("Drummond").

Claims 4, 6, 14 and 16 depend respectively from allowable claims 1 and 21. As discussed above, the combination of Gassho and Matsueda do not teach or suggest all the elements of claims 1 and 21. Drummond teaches that e-mail may be used to send a message to a particular address when a particular condition occurs. Drummond does not make up for the deficiencies of Gassho and Matsueda. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claims 4, 6, 14 and 16 based at least on their dependency on allowable claims 1 and 21.

Rejection - 35 U.S.C. § 103

The Examiner rejected claims 7-10 and 17-20 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Gassho and Matsueda '152, and further in view of U.S. Patent Publication 2003/0179404 (Matsueda '404).

The Examiner admits that neither Gassho nor Matsueda '152 disclose a program forming unit but that Matsueda '404 does disclose a program forming unit which installs a forming program in a predetermined position. The Examiner further asserts that the program is formed

when a shared printer is detected, citing paragraph [0057] of Matsueda '404. Applicant respectfully traverses the rejection.

Matsueda '404 discloses a server 102 creating a memory box in a printer at the time the server receives a print request (paragraph [0039]), whereas paragraph [0057] merely recites notifying the client apparatus of the password, box number, location of the printer and the like.

Amended claims 7 and 17 each recite installing the installing program into a predetermined position when addition of the new printer is detected by said printer monitoring unit. Matsueda merely creates a memory location (box) for storing the print job (paragraph [0048] and does not install an installing program as recited in claims 7 and 17. Further, Matsueda creates the memory box when the server receives a print request whereas claims 7 and 17 recite forming the installing program when a new printer is detected.

Applicant submits that the combination of Gassho, Matsueda '152, and Matsueda '404 does not make claims 7 and 17 obvious. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claims 7 and 17.

Claims 8-10 and 18-20 depend respectively from allowable claims 7 and 17. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the §103 rejection of claims 8-10 and 18-20 based at least on their dependency on allowable claims 7 and 17.

New Claims 22 and 23

New claims 22 and 23 depend from allowable claims 1 and 21 respectively. Accordingly, Applicant respectfully requests allowance of claims 22 and 23 based at least on their dependency on allowable claims 1 and 21.

Conclusion

Insofar as the Examiner's rejections have been fully addressed, the instant application including claims 1, 4-10 and 14-23 is in condition for allowance. Withdrawal of the Final Rejection, formal entry of the present "Amendment After Final," and issuance of a Notice of Allowability of claims 1, 4-10 and 14-23 is therefore earnestly solicited.

Respectfully submitted,

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